Figure 1

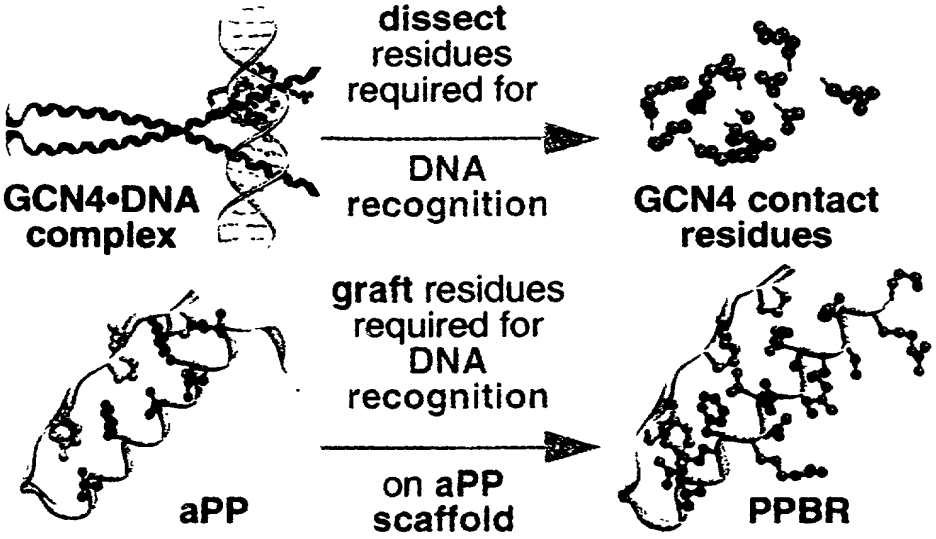

dissect
residues
required for
DNA
recognition
GCN4•DNA
complex
GCN4 contact
residues
graft residues
required for
DNA
recognition
on aPP
scaffold
aPP
PPBR

Figure 2

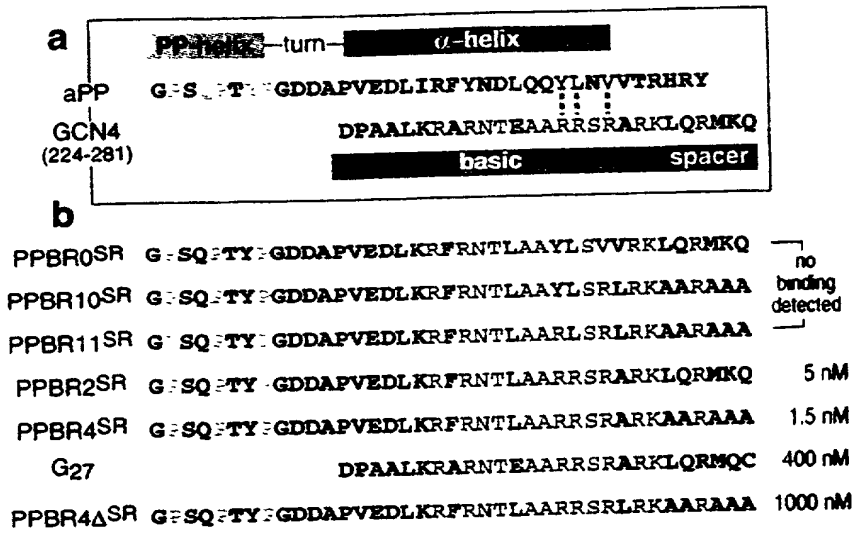

a
PP-helix
turn
α-helix
aPP
GCN4
(224-281)
basic
spacer
b
PPBR0SR
PPBR10SR
PPBR11SR
PPBR2SR
PPBR4SR
G27
PPBR4ΔSR
no binding detected
5 nM
1.5 nM
400 nM
1000 nM

Figure 3

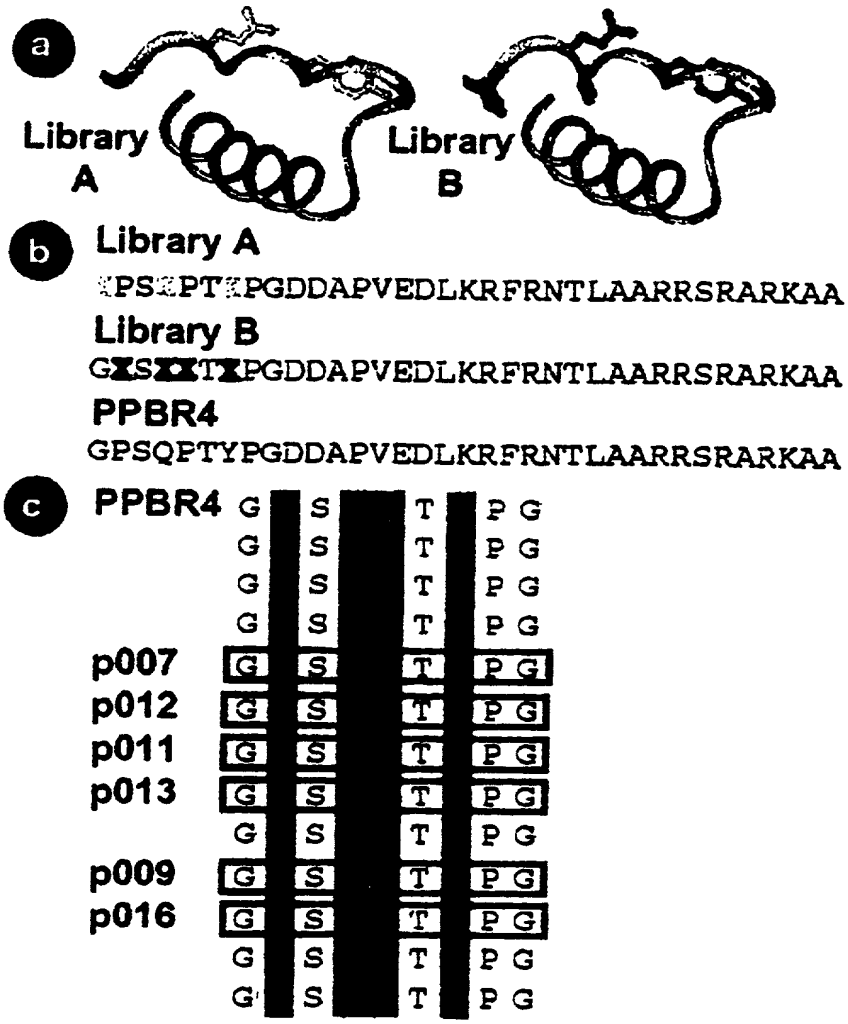

a
Library A
Library B
b
Library A
XPSXPTXPGDDAPVEDLKRFRNTLAARRSRARKAA
Library B
GXSXXTXPGDDAPVEDLKRFRNTLAARRSRARKAA
PPBR4
GPSQPTYPGDDAPVEDLKRFRNTLAARRSRARKAA
c
PPBR4
p007
p012
p011
p013
p009
p016

Figure 4

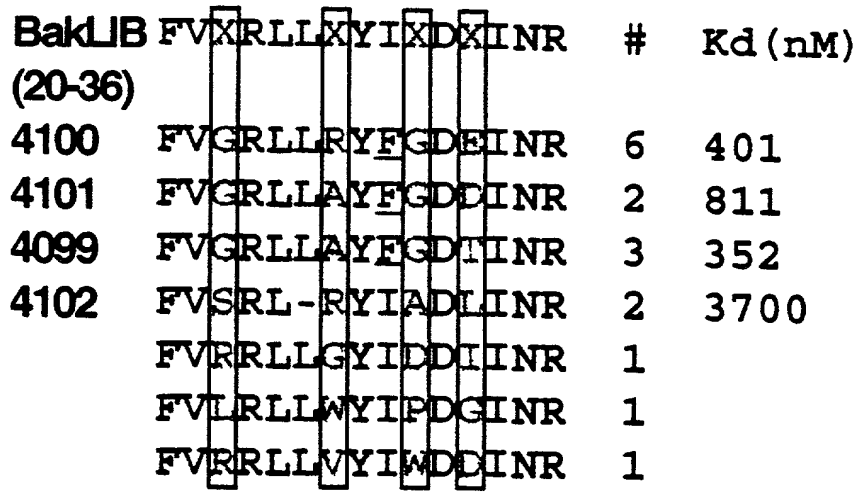

BakLIB (20-36) FVXRLLXYIXDXINR # Kd(nM)
4100 FVGRLLRYFGDEINR 6 401
4101 FVGRLLAYFGDEINR 2 811
4099 FVGRLLAYFGDIINR 3 352
4102 FVSRL-RYIADLINR 2 3700
FVRRLLGYIDDIINR 1
FVLRLLWYIPDGINR 1
FVRRLLVYIWDEINR 1

Figure 5

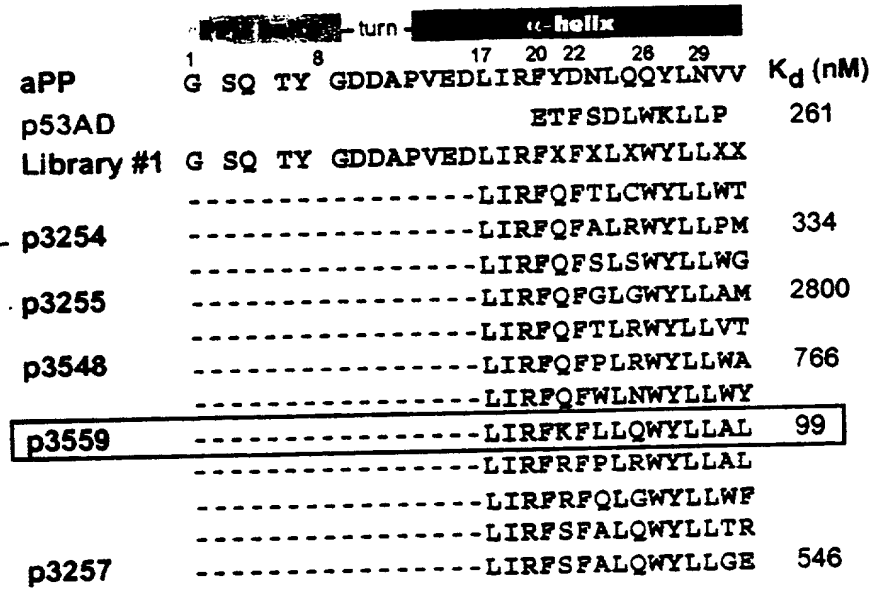
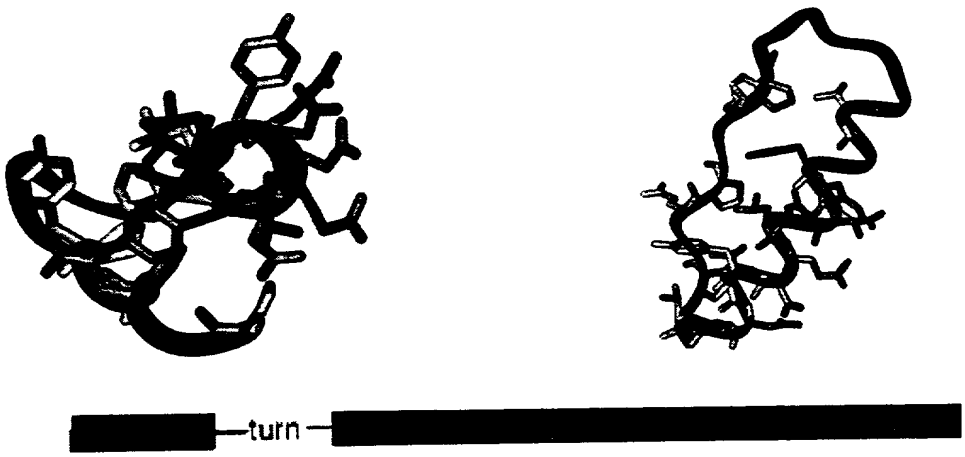

turn
α-helix
1 8 17 20 22 26 29
aPP G SQ TY GDDAPVEDLIRFYDNLQQYLNVV K_d (nM)
p53AD ETFSDLWKLLP 261
Library #1 G SQ TY GDDAPVEDLIRFXFXLXWYLLXX
----------LIRFQFTLCWYLLWT
p3254 ----------LIRFQFALRWYLLPM 334
----------LIRFQFSLSWYLLWG
p3255 ----------LIRFQFGLGWYLLAM 2800
----------LIRFQFTLRWYLLVT
p3548 ----------LIRFQFPLRWYLLWA 766
----------LIRFQFWLNWYLLWY
p3559 ----------LIRFKFLLQWYLLAL 99
----------LIRFRFPLRWYLLAL
----------LIRFRFQLGWYLLWF
----------LIRFSFALQWYLLTR
p3257 ----------LIRFSFALQWYLLGE 546

Figure 6


turn
aPP GPSQPTYPGDDAP V E D L I R F Y N D L Q Q Y L N V V
ULib1 GPSQPTYPGDDAP V E D L I R F X X X L X X Y L X V V